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EXAMINER	
BRANT, DMITRY	

ART UNIT	PAPER NUMBER
2655	8

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Please find below and/or attached an Office communication concerning this application or proceeding.

TS

Office Action Summary	Application No.	Applicant(s)	
	09/832,645	SATOH, KOUICHI	
	Examiner	Art Unit	
	Dmitry Brant	2655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-26 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-26 is/are rejected.

7)☒ Claim(s) 15,25,26 is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4,7 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Abstract

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words.

Claim Objections

1. Claims 15 is objected to because of the following informalities:

As to claim 15, the claim is recited as dependent on claim 13. It appears that claim 15 meant to refer to claim 14, since it recites "map buffer" recited in claim 14, but not in claim 13. The rest of this application is treated as if claim 15 referenced claim 14.

Appropriate correction is required.

2. Claims 25 and 26 are objected to because of the following informalities:

As to claim 25, the claim is recited as dependent on claim 21, which lacks "outputting the characters". It appears that claim 25 meant to refer to claim 24. The rest of this application is treated as if claim 25 referenced claim 24.

As to claim 26, the claim is dependent on claim 21, which lacks "outputting the characters". It appears that claim 26 meant to refer to claim 24. The rest of this application is treated as if claim 26 referenced claim 24.

Appropriate corrections are required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3, 7, 16, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Ito (6,243,675 filed 8/8/2000). The table below summarizes the limitations of these claims and teachings in Ito that meet these limitations.

Claim #	Limitations	Ito
1	A navigation system comprising:	
	speech-recognition means for performing speech-recognition processing on input speech spoken by a speaker	speech recognition is performed at **S210, FIG. 5**
	language-determining means for determining what language said input speech is spoken in based on the contents of said input speech as recognized by said speech-recognition means	The language setting routine is implemented by the speech control unit, as described in **FIG. 3**
	and navigation-processing means for performing a vehicle-installed-type navigation operation utilizing the language of a speaker as determined by said language-determining means.	In addition to the route guiding function ..., the navigation system of the present embodiment is selectively switchable of the language used for information output processing between Japanese language, English language, and German language.

		(Column 4, lines 6-11). Also see **(1, FIG. 1)**
2	The navigation system according to claim 1, wherein: said navigation-processing means includes map displaying means for displaying map information showing a vicinity of a vehicle and said map displaying means utilizes the language of a speaker, as determined by said language-determining means, for the language of characters included in said displayed map information.	See **40, FIG. 1** the navigation system is selectively switchable of the language used for information output processing between Japanese language, English language, and German language. The term "information output processing" means the information displaying on the display unit and the speech generation from the speaker. **(Column 4, lines 7-14).**
3	The navigation system according to claim 1, wherein: said navigation-processing means includes route-searching means for searching for a route to a destination and route-guiding means for guiding a vehicle by means of guiding speech along a route set by said route-searching means and said route-guiding means generates said guiding speech utilizing the language of a speaker as corresponding to said language determined by said language-determining means.	an optimal route from the present location to the location of destination is automatically selected, and the guidance route is formed and displayed. **(Column 3, lines 64-67)** After the guidance route is formed and displayed, speech for guiding the route is generated from the speaker by way of the speech output control unit depending on the running location of the vehicle. **(Column 4, lines 2-5)** the navigation system of the is selectively switchable of the language used for information output processing between Japanese language, English language, and German language. The term "information output processing" means the information

		displaying on the display unit and the speech generation from the speaker. **(Column 4, lines 7-14).**
7	The navigation system according to claim 1, further comprising: transmission requesting means for requesting transmission of detailed information in the language of a speaker as determined by said language-determining means and information receiving means for receiving the transmitted detailed information transmitted in accordance with the request from said transmission requesting means.	The communication I/F is an interface for connecting to cellular phones **(Column 8, lines 37-39)**. Cell-phones are inherently capable of transmitting and receiving information over the Internet and from wireless network providers.
16	A map information displaying method in a navigation system comprising the acts of: performing speech-recognition processing on input speech determining a language of a speaker of the input speech based on the contents of the recognized input speech and displaying map information utilizing the language determined for the language of the characters.	 speech recognition is performed at **S210, FIG. 5** The language setting routine is implemented by the speech control unit, as described in **S120, S140** and **S160** in **FIG. 3** the navigation system is selectively switchable of the language used for information output processing between Japanese language, English language, and German language. The term "information output processing" means the information displaying on the display unit and the speech generation from the speaker. **(Column 4, lines 7-14).**
20	A route guiding method in a navigation system comprising the acts of:	

	searching for a route to a destination	an optimal route from the present location to the location of destination is automatically selected, and the guidance route is formed and displayed. **(Column 3, lines 64-67)**
	performing speech-recognition processing on input speech	speech recognition is performed at **S210, FIG. 5**
	determining a language of a speaker of the input speech based on the contents of the recognized input speech	The language setting routine is implemented by the speech control unit, as described in **S120, S140** and **S160** in **FIG. 3**
	generating guiding speech corresponding to the speaker's determined language and guiding a vehicle along a route set in the searching step using the guiding speech.	speech for guiding the route is generated from the speaker by way of the speech output control unit depending on the running location of the vehicle. **(Column 4, lines 2-5).** The generated speech corresponds to the speaker's language as described in rejection for claim 3, last paragraph.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 4,8,9 and 14 are rejected under 35 U.S.C. 103(a) as being obvious over Ito as applied to claim 1, in view of Martino et al. (5,548,507).

As per claim 4, Ito discloses the navigation system that comprises the speech control unit implementing a "language setting routine" to determine the language spoken by the user. See FIG. 3

Ito does not disclose a system "wherein said language-determining means examines the language word in said input speech is spoken in and determines the language the majority of words are spoken in as a speaker's language."

Martino et al. teach a language identification system that "compares each source word with all the common words in all Word Frequency Tables (WFTs)" (Column 10, lines 30-32) associated with different languages, updates Word Frequency Accumulators (WFAs) for each language and once the processing of the document is finished, picks the language with the highest WFA value. (Column 11, lines 1-4) and FIG. 2.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify navigation system described by Ito to use the language recognition system taught by Martino et al. The motivation for doing so would have been an improved language identification method for the navigation system. The system taught by Martino et al. is less likely to pick the wrong language since it analyzes every word in the utterance and picks the most probable language, while the system taught by Ito picks the language based on the first

word it recognizes and hence could pick the wrong language if the utterance contains words from several languages.

As per claim 8, Ito discloses the navigation system that comprises a microphone (22a, FIG. 1) connected to a central control unit (10, FIG. 1) responsible for speech-recognition (11, FIG. 1), a display (40, FIG. 1), and a map data input unit, such as CD-ROM or DVD (60, FIG.1 and Column 3, lines 39-44) that is capable of retrieving information in multiple languages, as requested by speech-control device. (Column 4, lines 7-14).

Ito does not disclose " an identity learning unit for computing a frequency of languages determined by said speech-recognition device and for updating the contents of an identity database based on a frequency distribution of the languages stored in said identity database."

Martino et al. teach a language identification system that "compares each source word with all the common words in all Word Frequency Tables (WFTs)" (Column 10, lines 30-32) associated with different languages, updates Word Frequency Accumulators (WFAs) for each language and once the processing of the document is finished, picks the language with the highest WFA value. (Column 11, lines 1-4) and FIG. 2. The WFA are stored in "storage medium" (Column 11, lines 14-17) that could be a database or memory.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify navigation system described by Ito to use the language recognition system taught by Martino et al. The motivation for doing so would have been an improved language identification method for the navigation system. The system taught by Martino et al. is less likely to pick the wrong language since it analyzes every word in the utterance and picks the

most probable language, while the system taught by Ito picks the language based on the first word it recognizes and hence could pick the wrong language if the utterance contains words from several languages.

As per claim 9, Ito discloses the navigation system that comprises a microphone (22a, FIG. 1), an audio unit (21a, FIG. 1), a display (40, FIG. 1), and central control unit (10, FIG. 1) that performs speech processing (11, FIG. 1) and "is programmed to ... drive the information output unit to issue information in the set output mode", such as speech or map display (Column 2, 1-10).

Ito does not disclose " an identity learning unit for computing a frequency of languages determined by said speech-recognition device and for updating the contents of an identity database based on a frequency distribution of the languages stored in said identity database."

Martino et al. teach a language identification system that "compares each source word with all the common words in all Word Frequency Tables (WFTs)" (Column 10, lines 30-32) associated with different languages, updates Word Frequency Accumulators (WFAs) for each language and once the processing of the document is finished, picks the language with the highest WFA value. (Column 11, lines 1-4) and FIG. 2. The WFA are stored in "storage medium" (Column 11, lines 14-17) that could be a database or memory.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify navigation system described by Ito to use the language recognition system taught by Martino et al. The motivation for doing so would have been an improved language identification method for the navigation system. The system taught by Martino et al. is less

likely to pick the wrong language since it analyzes every word in the utterance and picks the most probable language, while the system taught by Ito picks the language based on the first word it recognizes and hence could pick the wrong language if the utterance contains words from several languages.

As for claim 14, Ito discloses the navigation system that comprises a microphone (22a, FIG. 1), a speech processing unit that performs speech recognition (11, FIG. 1), and a map data input unit, such as CD-ROM or DVD or other types of memory (60, FIG.1 and Column 3, lines 39-44) that is capable of retrieving information in multiple languages, as requested by speech-control device. (Column 4, lines 7-14) and central control unit (10, Figure 1) that can communicate with the map data input requesting the map in the appropriate language.

Ito does not disclose "an identity learning unit for computing a frequency of languages determined by said speech-recognition device and for updating the contents of an identity database based on a frequency distribution of the languages stored in said identity database."

Martino et al. teach a language identification system that "compares each source word with all the common words in all Word Frequency Tables (WFTs)" (Column 10, lines 30-32) associated with different languages, updates Word Frequency Accumulators (WFAs) for each language and once the processing of the document is finished, picks the language with the highest WFA value. (Column 11, lines 1-4) and FIG. 2. The WFA are stored in "storage medium" (Column 11, lines 14-17) that could be a database or memory.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify navigation system described by Ito to use the language recognition system

taught by Martino et al. The motivation for doing so would have been an improved language identification method for the navigation system. The system taught by Martino et al. is less likely to pick the wrong language since it analyzes every word in the utterance and picks the most probable language, while the system taught by Ito picks the language based on the first word it recognizes and hence could pick the wrong language if the utterance contains words from several languages.

Also, at the time of the invention it would have been obvious to a person of ordinary skill to also modify central control unit described by Ito to download some other map from the map data unit if the map in the requested language was not available.

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being obvious over Ito in view of Martino et al. as applied to claim 4, and further in view of Ohishi et al (6,385,535).

As per claim 5, Ito discloses the navigation system that comprises the speech control unit implementing a "language setting routine" to determine the language spoken by the user. See FIG. 3

Ito also does not disclose "language-determining means [that] includes a database for storing features of a speaker's language as extracted by the language-determining means and the speaker's language is determined individually."

Ohishi et al. teach a navigation system that includes a voice characteristic registering unit (71, FIG. 2) that stores voice characteristics of the frequent car riders.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify navigation system described by Ito to store speaker's voice features in a database storage such as voice characteristic registering unit which is taught by Ohishi. The motivation for doing so would have been an ability to train the language identification system to understand the speech idiosyncrasies of each driver.

8. Claim 6 is rejected under 35 U.S.C. 103(a) as being obvious over Ito as applied to claim 1, and in view of Urbach (WO 01/04790 A1).

Ito discloses the navigation system that can switch languages used for displaying information or speech generation. (Column 4, lines 7-14).

Ito does not disclose "image recognition means for determining the contents of the characters included in an inputted image of a captured predetermined road guiding board, wherein said navigation-processing means includes guiding means for replacing the characters, whose contents are determined by said image recognition means, with other characters, having the same meaning, in a speaker's language as determined by said language-determining means, and for performing at least one of displaying or speech-outputting."

Urbach teaches an apparatus that can capture images and replaces foreign characters in these images with the characters of the target language. (Page 3, lines 2-9)

At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify navigation system described by Ito to use the sign-translating device taught by Urbach. The motivation for doing so would have been an operational enhancement to the

navigation system taught by Ito, since this system would be capable not only of providing the road directions in the user's language, but would also translate the signs appearing along the road, thus improving user's ability to navigate in the foreign countries.

9. Claims 10-13 are rejected under 35 U.S.C. 103(a) as being obvious over Ito, in view of Urbach and further in view of Martino et al.

As per claim 10, Ito discloses the navigation system that comprises a microphone (22a, FIG. 1), a display (40, FIG. 1), and a speech processing unit that performs speech recognition (11, FIG. 1).

Ito does not disclose "an identity learning unit for computing a frequency of languages determined by said speech-recognition device and for updating the contents of an identity database based on a frequency distribution of the languages stored in said identity database", "a camera", "an image recognition unit for determining a language of a character string included in a road guiding board captured by said camera", and "a guiding sign generating unit, for generating a guiding image in a speaker's language, connected with said image recognition device."

However, Urbach teaches a camera (page 7, line 3) with character recognition unit (54, Fig. 1b) that is capable of translating and generating images in user's language (58, Fig. 1b).

Therefore, it would have been obvious to a person of ordinary skill in the art to further modify navigation system described by Ito combined with the camera taught by Urbach because

it would the system to translate the signs appearing along the road, thus improving user's ability to navigate in the foreign countries.

Neither Ito nor Urbach teach "an identity learning unit for computing a frequency of languages determined by said speech-recognition device and for updating the contents of an identity database based on a frequency distribution of the languages stored in said identity database."

However, Martino et al. teach a language identification system that "compares each source word with all the common words in all Word Frequency Tables (WFTs)" (Column 10, lines 30-32) associated with different languages, updates Word Frequency Accumulators (WFAs) for each language and once the processing of the document is finished, picks the language with the highest WFA value. (Column 11, lines 1-4) and FIG. 2. The WFA are stored in "storage medium" (Column 11, lines 14-17) that could be a database or memory.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to further modify navigation system described by Ito combined with the camera taught by Urbach to use the language recognition system taught by Martino et al.. This would have been an operational enhancement to the navigation system taught by Ito, since this system would have improved language identification capabilities and it would to translate the signs appearing along the road, thus improving user's ability to navigate in the foreign countries.

As per claim 11, Ito discloses speech control unit that can generate speech (11, FIG. 1) and audio unit for outputting speech (21a, FIG. 1).

As per claim 12, Ito does not teach a system "wherein guiding sign generating unit generates the guiding image by replacing the language of the character strings in a route guiding board with character strings of a different language."

However, Urbach teaches a system that can provide a translation (28, FIG. 2) of the target area (26, FIG. 2) at the bottom of the screen (30, FIG. 2). At the time of the invention it would have been obvious to a person of ordinary skill in the art of image processing to modify the system taught by Urbach to display the translation (28, FIG. 2) on top of the target area (26, FIG. 2) instead of the bottom of the screen, particularly because Urbach teaches the use of his system with digital camcorders (10, FIG. 1). The digital images captures by these camcorders are easily manipulated in software or hardware; hence, it would have been easy to change the captured image using the camera's software/hardware to replace the target area with the translation or place the translation on any other part of the image. As a result, the user would translation directly on the image of the road sign.

As per claim 13, Ito does not teach a system "wherein guiding sign generating unit generates the guiding image without replacing the language of the character strings contained in said road guiding board."

Urbach teaches a system that can provide a translation (28, FIG. 2) of the target area (26, FIG. 2) at the bottom of the screen (30, FIG. 2), without directly manipulating the image.

Therefore, it would have been obvious to a person of ordinary skill in the art to augment Ito's system with a unit taught by Urbach. This would allow Ito's system to display road signs even if translation was not available in the speaker's language.

10. Claims 17-18 are rejected under 35 U.S.C. 103(a) as being obvious over Ito as applied to claim 16.

As per claim 17, Ito discloses the navigation system that comprises a map data unit, such as CD-ROM or DVD or other types of memory (60, FIG.1 and Column 3, lines 39-44).

Ito does not disclose "a map information displaying method comprising the act of determining whether map information corresponding to a speaker's determined language is stored in a storage medium."

At the time of the invention it would have been obvious to a person of ordinary skill that a multitude of maps in different languages can be stored on CD-ROM or DVD disks. Furthermore, it would have been obvious to a person of ordinary skill that a variety of software or hardware methods could be implemented for determining whether a map in a specified language is available on the DVD or CD-ROM. This would allow the system to check whether the DVD or CD-ROM was available in the user's language.

As per claim 18, Ito does not disclose "the act of reading map information independent oa a speaker's language when the speaker's determined language is not stored in the storage medium."

However, it would have been obvious to a person of ordinary skill in the art that a default map could be read from DVD or CD-ROM device, if the map in a specified language were not

available. This would allow the system to show the user a foreign language map - such map could still provide some navigational help for the user.

11. Claim 19 is rejected under 35 U.S.C. 103(a) as being obvious over Ito as applied to claim 16, and further in view of Weiner (6,490,521).

Ito discloses communication interface for connecting to cellular phones (Column 8, lines 37-39) and data memory (93, FIG. 6).

Ito does not disclose a system where "a request of transmitting map information is sent to the information center" and "the map information corresponding to this transmission request is received and stored in a map buffer."

Weiner teaches a system that requests and receives map information from the service provider (B518, B524, FIG. 5) over a cellular network (32, FIG. 1).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify navigation system discloses by Ito to download map from the service provider as taught by Weiner. This would allow the navigation system to obtain maps on demand from the service provider to virtually any location, since the memory capacity of the local navigation system is limited, while the service provider can store a very large number of maps.

12. Claims 21-26 are rejected under 35 U.S.C. 103(a) as being obvious over Ito, and further in view of Urbach (WO 01/04790 A1).

As per claim 21, Ito describes the navigation system that can perform speech recognition and automatically determine the language of the speaker. (FIG. 5)

Ito does not describe means for capturing the images of road guiding boards (signs) and translating the contents of these boards into the speaker's language.

Urbach teaches an apparatus that can capture images of signs and translate them into the user's language. (Page 3, lines 2-9)

At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify navigation system described by Ito to use the sign-translating device taught by Urbach. This would have been an operational enhancement to the navigation system taught by Ito, since this system would be capable not only of providing the road directions in the user's language, but would also translate the signs appearing along the road, thus improving user's ability to navigate in the foreign countries.

As per claim 22, Ito does not teach "the act of displaying the characters in the speaker's determined language".

Urbach further describes a system that displays the translation in the speaker's language. (Page 7, lines 18-19).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify navigation system described by Ito to display the characters in the speaker's language using the system taught by Urbach, because this would allow the user to view the translation of the road signs on the display.

As per claim 23, Ito does not disclose "audibly outputting the characters in the speaker's determined language."

However, Urbach further describes a system that audibly outputs the translation in the speaker's language. (Page 7, lines 19-21)

Therefore, it would have been obvious to a person of ordinary skill in the art to modify navigation system described by Ito to audibly output the characters in the speaker's language using the system taught by Urbach, because this would allow the user to listen to translation of the road signs.

As per claim 24, Ito describes the navigation system that can perform speech recognition and automatically determine the language of the speaker. (FIG. 5)

Ito does not describe means for capturing the images of road guiding boards (signs) and determining the contents of these boards.

Urbach teaches an apparatus that can capture images of signs and determine the contents of the text in the captured image, since analysis of text is part of the translation (Page 3,lines 2-9)

At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify navigation system described by Ito to use the sign-capturing device taught by Urbach. The motivation for doing so would have been an operational enhancement to the navigation system taught by Ito, since this system would be capable not only of providing the road directions in the user's language, but would also analyze the signs appearing along the road, thus improving user's ability to navigate in the foreign countries where local notation may be different from the notation the user is accustomed to.

As per claim 25, Ito does not disclose a system "wherein the act of outputting the characters contained in said image is performed audibly."

However, Urbach further describes a system that audibly outputs the translation in the speaker's language. (Page 7, lines 19-21)

Therefore, it would have been obvious to a person of ordinary skill in the art to modify navigation system described by Ito to audibly output the characters contained in the road sign in the speaker's language using the system taught by Urbach, because this would allow the user to listen to translation of the road signs.

As per claim 26, Ito does not disclose a system "wherein the act of outputting the characters comprises the act of displaying the characters."

However, Urbach further describes a system that displays the translation in the speaker's language. (Page 7, lines 18-19)

Therefore, it would have been obvious to a person of ordinary skill in the art to modify navigation system described by Ito to display the characters contained in the road sign in the speaker's language using the system taught by Urbach, because this would allow the user to view the translation of the road signs on the display.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dmitry Brant whose telephone number is (703) 305-8954. The examiner can normally be reached on Mon. - Fri. (8:30am - 5pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Talivaldis Ivars Smits can be reached on (703) 306-3011. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to Tech Center 2600 receptionist whose telephone number is (703) 305- 4700.

DB
11/7/03

TĀLIVALDIS IVARS ŠMITS
PRIMARY EXAMINER